

REMARKS

Upon entry of the present response, claims 1, 10, 12, 13, 18, and 22 will have been amended in order to clarify the recitations of present invention and to define the features of the present invention with enhanced specificity. In addition, claim 2 will have been canceled without prejudice or disclaimer of the subject matter thereof and the recitations thereof will have been incorporated into claim 1.

Upon entry of the present response, Applicant respectfully requests reconsideration and withdrawal of each of the outstanding objections and rejections forth in the above mentioned official action together with an indication of the allowability of all of the claims pending in the present application. Such action is now believed to be appropriate and proper and is thus respectfully requested, in due course.

In the outstanding Official Action, the Examiner indicated that the then current rejections of the claims were withdrawn and set forth new grounds of rejection. Applicant notes the withdrawal of the previous rejections with approval and respectfully submits that the present rejections are also inappropriate and should be withdrawn.

In the outstanding official action, the Examiner objected to the language of claims 12, 13, 18, and 22 because of the lack of a connecting phrase. While Applicant does not believe that such a phrase is necessary in view of the claim terminology utilized therein, in order to resolve the Examiner's concerns, each of the claims has been appropriately amended.

In the outstanding official action, the Examiner rejected claims 1, 2 and 6-23 under 35 USC 112, second paragraph. In particular, the Examiner asserted that it was not clear how the movement of the alignment lens alone, in a direction perpendicular to an optical axis, performs an alignment of all of the plurality of lens elements of the first lens unit. In this regard, the

Examiner made reference to paragraph 0077 which describes a worker dropping the lenses of the objective optical system 91, one by one into the lens barrel 92. Thus the Examiner concluded that the alignment lens is not used to achieve alignment of the entire plurality of lens elements. Applicant respectfully submits that the Examiner's understanding of the operation of the present invention is correct. However, the Examiner's rejection of the pending claims is nevertheless submitted to be inappropriate.

In particular, paragraph 0077 refers to the actions of the worker in dropping the lenses into the lens barrel prior to the installation of the alignment lens therein. Accordingly, it is inherently obvious that the alignment lens cannot achieve the alignment of any lenses before the alignment lens is itself installed into the lens barrel. However, the claim language refers the aligning action of the alignment lens once it has been installed in the lens barrel.

Applicant notes that the tweezers are used when the lenses are first fitted into the lens barrel prior to the positioning of the alignment lens 91a therein. However, once the alignment lens is installed in the lens barrel, the tweezers are no longer utilized. Rather, the position of the installed alignment lens 91a is adjusted by means of the pins 122, as is explicitly described in paragraph [0063].

Applicant also wishes to bring to the Examiner's attention that the alignment lens 91a is cemented lens comprising a positive lens and a negative lens that are cemented together, as is shown in figure 4 and as is described in paragraph [0049]. Moreover, the cemented alignment lens is quite sensitive to alignment error, as set forth in paragraph [0059]. Accordingly, the alignment lens can compensate for assembly errors due to manufacturing errors in the other lenses installed within the lens barrel by being adjusted in its position in a direction perpendicular to the optical axis.

In this regard, Applicant notes that claim 1 recites that "movement of the alignment lens in the direction perpendicular to the optical axis alone adjusting an alignment of the entire plurality of lens elements assembled in the first lens unit". In other words, it is when the alignment lens is moved in a direction perpendicular to an optical axis thereof (which of course can only occur once the alignment lens has been positioned along the optical axis within the lens barrel) that the movement of the alignment lens alone is effective to adjust an alignment of the entire plurality of lens elements assembled that have been in the first lens unit. However, prior to such installation of the alignment lens within the lens barrel that the tweezers are utilized to adjust the position of the other lenses individually. This does not in any manner detract from the accuracy of the recitations of the pending claims.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection of the claims in the present application under 35 USC 112, second paragraph. In this regard, should the Examiner still have concerns regarding this aspect of Applicant's invention, and the manner in which it is recited, he is respectfully requested to contact the undersigned at the below listed telephone number to discuss language or terminology to overcome and resolve such concerns.

In the outstanding official action, the Examiner rejected claims 1, 2, and 6-17 under 35 USC 103(a) as been unpatentable over ONDA (U.S. Patent Number 6,590,721) in view of TSUYUKI (U.S. Patent Number 5,547,457). Although the Examiner only mentioned the above noted claims in the heading of the rejection, he appears to have rejected all of the pending claims based on these references and Applicant will respond to the Examiner's rejection based on this understanding thereof. In particular, Applicant respectfully traverses the above noted rejection

and submits that it is inappropriate with respect to the combinations of features recited in each of Applicant's claims.

Applicant respectfully submits that the disclosures of the references relied upon by the Examiner in the outstanding rejection, whether considered individually or whether considered in any proper combination are inadequate and insufficient to render the present invention, as defined by the pending claims, unpatentable.

In setting forth the rejection, the Examiner relies on ONDA for disclosing a so-called alignment lens 2. However, Applicant notes that the lens 2 abuts against a flange 5, which is a rigidly fixed part of the holding frame 4. In direct contrast to the above, the fixing unit recited in Applicant's claims has a threaded surface that is engaged with a threaded surface of the first lens barrel. Clearly this feature of Applicant's invention is not disclosed by ONDA. In this regard, the Examiner's attention is respectfully directed to, inter alia, figure 4, which shows the engagement of the lens holding ring 93 with the lens barrel 92. As a result of this explicitly recited feature of Applicant's invention, the lens unit which includes the first lens unit 90a can be securely assembled in a correct and accurate position along the optical axis, in accordance with a two-step process.

In particular, once all of the lenses of the objective optical system 91 are fitted into the lens barrel 92, the lens holding ring 93 is preliminarily fastened. The lens barrel 92 is then installed in the accommodating chamber 111 of the alignment jig 105 as set forth in paragraph [0079]. After completing the alignment, utilizing the pins 122 and the jig 105, the lens holding ring is fully tightened to press the objective optical system within the lens barrel so that the position of the various lenses are securely maintained within the lens barrel, as set forth in

paragraph [0083]. Clearly, such a two-step positioning and securing process cannot be obtained utilizing the fixed holding part 5 of ONDA.

In the outstanding rejection, the Examiner relies upon TSUYUKI for disclosing an "analogous" objective optical system including a first lens unit having a first lens barrel and a second lens unit having a second lens barrel that is engageable with the first lens barrel. However, TSUYUKI contains no discussion or disclosure regarding a fixing unit that is threadedly engaged with a threaded surface of the first lens barrel to fix the first optical system to the first lens barrel, as recited in Applicant's claims.

Accordingly, since neither of the two references relied upon by the Examiner in the outstanding rejection disclose at least a fixing unit as recited therein, in the claim combinations, no proper combination of these references can teach or render obvious the pending claims.

Accordingly, no proper combination of these two references is adequate or sufficient to render the pending claims unpatentable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection together with an indication of the allowability of all the claims pending in the present application.

SUMMARY AND CONCLUSION

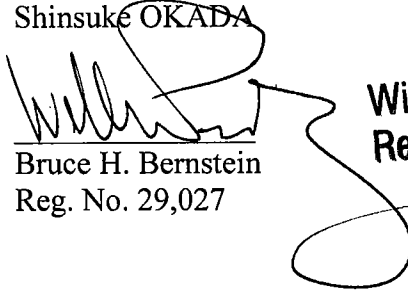
Applicant has made a sincere effort to place the present application into condition for allowance and believes that he is now done so. Applicant has amended the claims to clarify the features of Applicant's invention as well as to eliminate the basis for the Examiner's objection thereto. Applicant has additionally explained the features of the present invention so as to eliminate the basis for the Examiner's rejection of the pending claims under 35 USC 112, second paragraph.

Applicant has discussed the disclosures of the references relied upon by the Examiner in the outstanding rejection and has shown the same to be inadequate. Applicant has discussed the shortcomings of the references with respect to the features of the pending claims. Applicant has additionally discussed the explicit recitations of the claims and has noted, with respect to such recitations, the deficiencies of the references with respect thereto. Accordingly, Applicant has provided a clear and convincing evidentiary basis supporting the patentability and allowability of all of the claims pending in the present application and respectfully requests an indication to such effect in due course.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
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